
**State of California
The Resources Agency
Department of Water Resources**

HISTORIC PROPERTIES MANAGEMENT PLAN

PRELIMINARY DRAFT REPORT

**Oroville Facilities
FERC Project No. 2100**



December 7, 2004

**ARNOLD
SCHWARZENEGGER**
Governor
State of California

MIKE CHRISMAN
Secretary for Resources
The Resources Agency

LESTER A. SNOW
Director
Department of Water
Resources

State of California
The Resources Agency
Department of Water Resources

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This report was prepared under the direction of

Janis Offermann Resource Area Manager, Department of Water Resources

by

Steve Heipel Senior Planner, EDAW, Inc.

Adrian Praetzellis Professor of Anthropology, Sonoma State University

EXECUTIVE SUMMARY

The California Department of Water Resources (DWR) owns and operates the Oroville Facilities in Butte County, California, under a hydropower license issued by the Federal Energy Regulatory Commission (FERC). The FERC license for the Oroville Facilities (FERC Project No. 2100) was issued on February 11, 1957. The existing license expires on January 31, 2007. DWR initiated the relicensing process under the procedures and guidance of FERC, in accordance with the FERC authorities provided in the Federal Power Act (FPA) of 1920 (16 United States Code [USC] 791(a)–825(r)) and the amendments to the FPA incorporated in the Electric Consumers Protection Act (ECPA) of 1986.

Before issuing a new hydropower license, FERC must comply with a number of federal laws, regulations, executive orders, policies, and guidelines. Among these requirements is compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (16 USC 470) and the regulations implementing Section 106 issued by the Secretary of the Interior (36 Code of Federal Regulations [CFR] 800). As a State agency, DWR must comply with a variety of State laws and regulations, including those related to the identification, evaluation, and management of significant cultural resources on public lands.

In accordance with 36 CFR 800.16(d), the cultural resources inventory and evaluation efforts are taking place within an Area of Potential Effects (APE) established for the Oroville Facilities. The APE for archaeological resources is defined as the limits of the FERC project boundary, which encompasses about 41,100 acres of land. The APE for the ethnographic and ethnohistoric studies was enlarged in certain locations to address the special nature of these resources. The APE for historical buildings and structures was expanded to include the operations and maintenance facilities located outside the formal FERC boundary. The formal inventory and evaluation efforts for cultural resources within the APE have not been completed. However, it is acknowledged that the operation of the Oroville Facilities under the new license could affect cultural resources listed in, or eligible for inclusion in, the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR). Prehistoric and historic archaeological sites, historical buildings and structures, and areas of sacred and traditional concern that are eligible for the NRHP are referred to as historic properties.

This Historic Properties Management Plan (HPMP) is intended to address the management of the diverse cultural resources associated with the Oroville Facilities over the life of the new hydropower license. The HPMP was developed in accordance with the *Guidelines for the Development of Historic Properties Management Plans for FERC Hydroelectric Projects* prepared by FERC in May 2002 as jointly issued by FERC and the Advisory Council on Historic Preservation (ACHP). This HPMP was prepared in consultation with the following entities:

- The U.S. Forest Service (USFS);
- The U.S. Bureau of Land Management (BLM);

- The California Department of Parks and Recreation (DPR);
- The Tribal Unity Council composed of Enterprise Rancheria (Estom Yumeka Maidu Tribe), Mooretown Rancheria, and Berry Creek Rancheria (Tyme Maidu Tribe);
- The Maidu Advisory Council (MAC), an informal group that includes members from Mooretown Rancheria, Enterprise Rancheria, Berry Creek Rancheria, Mechoopda Indian Tribe of Chico Rancheria, and Konkow Valley Band of Maidu;
- The Cultural Resources Work Group also established during this Alternative Licensing Process (ALP); and
- The State Historic Preservation Officer (SHPO).

The HPMP is included in the hydropower license application to FERC and will become a part of the new license upon acceptance by DWR. The HPMP is intended as an integrated component of DWR's overall management of the Oroville Facilities, which includes other key project objectives including, but not limited to power generation, water supply, flood management, fish and wildlife protection, and public recreation.

The following are the main components of the HPMP:

- Measures to Address Ongoing Effects;
- Protocols for Proposed Future Actions;
- Program for Future Archaeological Inventory;
- Program for Future Resource Evaluation;
- Public Interpretation Program;
- Procedures for Inadvertent Discoveries;
- Procedures for Emergency Situations;
- Roles, Responsibilities, and Reporting Requirements;
- Historic Properties Management Plan Implementation; and
- Procedures for Review and Update.

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ACRONYMS AND ABBREVIATIONS

ACHP	Advisory Council on Historic Preservation
AIRFA	American Indian Religious Freedom Act
APE	Area of Potential Effects
ARPA	Archaeological Resources Protection Act
BLM	U.S. Bureau of Land Management
CCR	California Code of Regulations
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CRA	Cultural Resources Administrator
CRC	Cultural Resources Coordinator
CRHR	California Register of Historical Resources
CRCG	Cultural Resources Consultation Group
CRWG	Cultural Resources Work Group
DES	Division of Environmental Services
DFG	California Department of Fish and Game
DPR	California Department of Parks and Recreation
DWR	California Department of Water Resources

ECPA	Electric Consumers Protection Act
FERC	Federal Energy Regulatory Commission
FPA	Federal Power Act
GIS	Geographic Information Systems
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
HPMP	Historic Properties Management Plan
LCU	License Coordination Unit
LOSRA	Lake Oroville State Recreation Area
MAC	Maidu Advisory Council
maf	million acre-feet
MW	megawatts
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OWA	Oroville Wildlife Area
PA	Programmatic Agreement
PL	Public Law
PRC	California Public Resources Code
SHPO	State Historic Preservation Officer
SSP	California Archaeological Site Stewardship Program
SWP	State Water Project
USC	United States Code
USFS	U.S. Forest Service

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1.0 INTRODUCTION

This document is organized into eight chapters. To facilitate the use of this document, each of these chapters is briefly summarized below.

Chapter 1.0, Introduction, briefly describes the Oroville Facilities, provides the scope and purpose of the Historic Properties Management Plan (HPMP), lists the management goals, and provides the regulatory context for this document.

Chapter 2.0, Project Setting, provides an overview of the prehistoric, ethnographic, and historic contexts, describes the cultural resources investigations that have been conducted for the Oroville Facilities, and summarizes the results of those studies. Confidential resource-specific information is provided in separate appendices.

Chapter 3.0, Project-Related Effects, addresses the nature of various ongoing project-related impacts to cultural resources.

Chapter 4.0, Management Measures, provides information on the actions intended to address ongoing effects on historic properties, protocols for future proposed actions, and programs for future inventory and evaluation; describes the public interpretation program; and provides procedures for inadvertent discoveries and emergency situations.

Chapter 5.0, Roles, Responsibilities, and Reporting Requirements, describes the roles, responsibilities, and reporting requirements for the HPMP.

Chapter 6.0, Historic Properties Management Plan Implementation, contains the process and schedule for implementation of the management measures described in Chapter 4.0.

Chapter 7.0, Procedures for Review and Update, addresses the periodic review and update of the HPMP.

Chapter 8.0, References Cited, provides a complete list of documents cited in this document.

1.1 PROJECT DESCRIPTION

The Oroville Facilities are located on the Feather River in the foothills of the Sierra Nevada in Butte County, California. They are located near the city of Oroville and are about 70 miles north of Sacramento (Figure 1.1-1). Project No. 2100 encompasses 41,100 acres of public land. Of this total, 3,850 acres are managed by BLM and 1,194 acres are managed by USFS. These federal holdings are in discontinuous parcels, including some inundated lands. The remainder of the acreage within the Oroville Facilities is managed by the State.

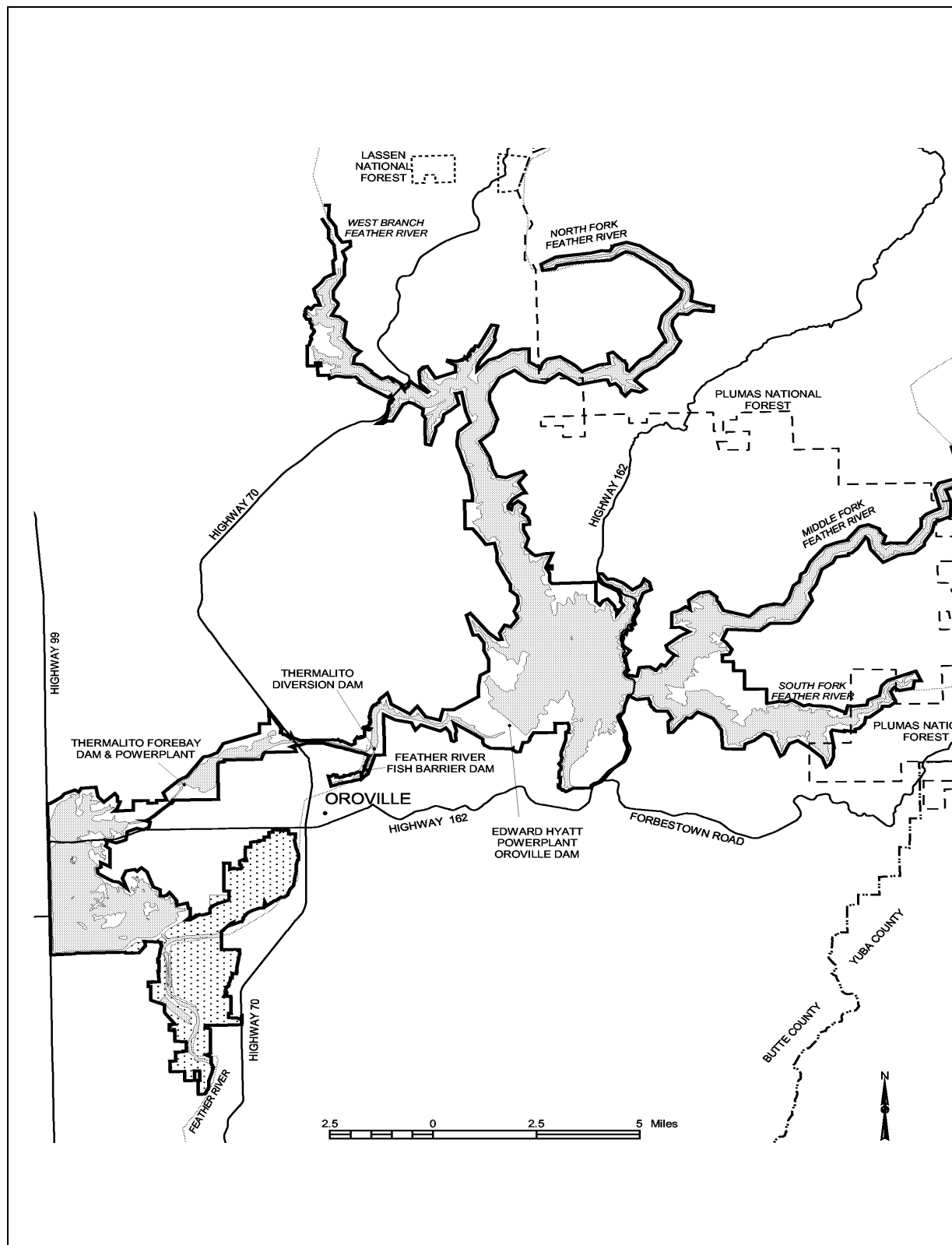


Figure 1.1-1. Oroville Facilities Location Map.

The Oroville Facilities were developed in the 1960s as part of the State Water Project (SWP), a water storage and delivery system of reservoirs, aqueducts, power plants, and pumping plants. The main purpose of the SWP is to store and distribute water to supplement the needs of urban and agricultural water users in northern California, the San Francisco Bay Area, the San Joaquin Valley, and Southern California. The SWP is also operated for the purposes of flood management, power generation, water quality, and recreation, and to enhance fish and wildlife.

The Oroville Facilities includes all of the following:

- Oroville Dam;
- Lake Oroville;
- Three power plants (the Hyatt Pumping-Generating Plant, the Thermalito Diversion Dam Power Plant, and the Thermalito Pumping-Generating Plant);
- Thermalito Diversion Dam;
- the Thermalito Power Canal;
- Thermalito Forebay;
- Thermalito Forebay Dam;
- Thermalito Afterbay;
- Thermalito Afterbay Dam; and
- Electrical transmission lines.

Oroville Dam, along with two small saddle dams, impounds Lake Oroville, a 3.5-million-acre-feet (maf) capacity storage reservoir with a surface area of 15,810 acres at its normal maximum operating level.

The hydroelectric facilities have a combined licensed capacity of approximately 762 megawatts (MW). The Hyatt Pumping-Generating Plant is the largest of the three power plants, and has a capacity of 645 MW. Other generation facilities include the 3-MW Thermalito Diversion Dam Power Plant and the 114-MW Thermalito Pumping-Generating Plant. Other aspects of the Oroville Facilities include the Feather River Fish Hatchery, the Fish Barrier Dam, and the 11,000-acre Oroville Wildlife Area (OWA), which is managed for wildlife habitat, recreation, and gravel mining.

Recreational facilities in the project area include developed and primitive camping, boating, fishing, hunting, picnicking, swimming, horseback riding, hiking, off-road bicycle riding, wildlife viewing, and visitor information sites with cultural and informational displays about the developed facilities and the natural environment. There are major recreation facilities at Loafer Creek, Bidwell Canyon, the Spillway, North and South

Thermalito Forebay, and Lime Saddle. There are also facilities at the Lake Oroville Visitors Center, Thermalito Afterbay, and OWA. Additionally, there are two full-service marinas, five car-top boat launch ramps, ten floating campsites, and seven strategically placed floating toilets to provide for the practical needs of visitors.

1.2 SCOPE AND PURPOSE

The HPMP is intended to provide guidance on the management of more than 1,000 known archaeological sites, historic resources, and areas of sacred and traditional concern that are known to be located within the 41,100-acre Oroville Facilities project boundary. Because of the size of the project area, the number of documented cultural resources, and the duration of the new license, this plan provides both broad adaptive management concepts and specific implementation steps. The HPMP is intended to:

- Meet the regulatory requirements of the National Historic Preservation Act (NHPA);
- Provide measures needed to avoid, minimize, or otherwise resolve adverse effects on significant cultural resources that could be affected by the project;
- Provide the California Department of Water Resources (DWR) with proactive direction to help protect, preserve, and interpret significant cultural resources in the project area, and
- Establish procedures intended to facilitate the consideration of potential impacts to cultural resources at the Oroville Facilities resulting from proposed future agency actions.

This plan was written in a manner intended to facilitate use and tracking of implementation of specific actions by DWR management. It is also intended to provide other interested parties (e.g., the U.S. Bureau of Land Management [BLM], U.S. Forest Service [USFS], California Department of Parks and Recreation [DPR], California Department of Fish and Game [DFG], State Historic Preservation Officer [SHPO], Indian tribes) with sufficient information and guidance to provide meaningful review and comment on the long-term stewardship of historic properties.

1.3 MANAGEMENT GOALS

While preparing this management plan, DWR considered specific goals associated with the stewardship of historic properties in relation to the operation and maintenance of the Oroville Facilities. These goals were developed in part based on input received during the collaborative relicensing process, particularly from the Cultural Resources Work Group (CRWG) and the Maidu Advisory Council (MAC). The goals of the HPMP are to:

- Ensure consistency with existing federal and State laws and regulations;
- Strive for the preservation and protection of historic properties;

- Address ongoing and potential future project-related effects on historic properties through avoidance, monitoring, stabilization, data recovery, and other treatment measures;
- Enhance the values of cultural resources through public interpretation and public involvement in site stewardship;
- Implement cost-effective measures for the management of historic properties while considering the needs of the project and other public interests and resource areas (e.g., recreational opportunities, water quality, aquatic and terrestrial resources, aesthetics); and
- Facilitate regular communication and coordination with other agencies and local Maidu tribes with interests in the management of historic properties associated with the Oroville Facilities.

1.4 REGULATORY CONTEXT

Historical and archaeological resources are managed under an intricate system of federal and State laws, some of which have resulted in comprehensive plans or management strategies. The Federal Power Act (FPA) of 1920 (16 United States Code [USC] 791(a)–825(r)), as amended by the Electric Consumers Protection Act (ECPA) of 1986, assigns the responsibility for issuing licenses for nonfederal hydropower projects to the Federal Energy Regulatory Commission (FERC). Under this authority, FERC is required to give equal consideration to a full range of purposes related to the potential value of a stream or river, including, but not limited to energy conservation, hydroelectric development, recreational opportunities, flood control, water supply, environmental resources and quality, fish and wildlife resources and habitat, and cultural resources. In considering a new license, FERC must comply with the federal regulations relevant to the issuing of hydropower licenses that are provided in 18 Code of Federal Regulations (CFR) Part 4.

FERC also has the lead responsibility for complying with applicable federal laws, regulations, and policies, including those that pertain to cultural resources. DWR, as a State agency and the applicant for the hydropower license, has lead responsibility for complying with applicable State laws and regulations.

The ongoing cultural resources inventory and evaluation studies are being conducted in compliance with these federal and State requirements. A summary of the laws, executive orders, and policies that pertain to historic resources, archaeological resources, and ethnographic/ethnohistoric resources addressed within the HPMP are briefly summarized below.

1.4.1 Federal Laws, Regulations, and Executive Orders

1.4.1.1 Antiquities Act of 1906

The Antiquities Act (16 USC 431–433) authorized the President of the United States to designate National Monuments and provided criminal penalties (fines and/or imprisonment) for the unauthorized excavation, injury, or destruction of prehistoric or historic ruins and objects of antiquity located on federal lands. This act also authorized the Secretaries of the Departments of the Interior, Agriculture, and War to issue permits to qualified institutions for the excavation of archaeological sites or removal of archaeological items if such actions were in the best interests of the United States.

1.4.1.2 Historic Sites Act of 1935

The Historic Sites Act (16 USC 461–467) established a national policy to preserve for public use historic sites, buildings, and objects of national significance for the inspiration and benefit of the people of the United States, and led to the implementation of the Historic American Building Survey (HABS) and the Historic American Engineering Record (HAER) by the Secretary of the Interior and the National Park Service. This act also created a National Park System Advisory Board, which, among other duties, was responsible for making recommendations on the designation of National Historic Landmarks.

1.4.1.3 National Historic Preservation Act of 1966

The NHPA (16 USC 470 et seq.) established the Advisory Council on Historic Preservation (ACHP), authorized the Secretary of the Interior to maintain a National Register of Historic Places (NRHP), directed the Secretary to approve state historic preservation programs that provided for a SHPO, established a National Historic Preservation Fund program, and codified the National Historic Landmarks program. The formal procedures for evaluating and listing resources in the NRHP were established by the Secretary of the Interior in 36 CFR Part 60.

Section 101 of the NHPA requires that programs be developed to ensure that tribal values are taken into account to the extent feasible, and recognizes that properties of traditional religious and cultural importance to Indian tribes or Native Hawaiian organizations may be eligible for inclusion in the NRHP.

Section 106 of the NHPA requires federal agencies to take into account the effects of their actions on properties that may be eligible for or listed in the NRHP, and afford the ACHP a reasonable opportunity to comment. To determine whether an undertaking could affect NRHP-eligible properties, all cultural sites (including archaeological, historical, and architectural properties) that could be affected by the undertaking must be inventoried and evaluated for inclusion in the NRHP. Regulations implementing Section 106 have been published by the Secretary of the Interior (36 CFR Part 800).

1.4.1.4 National Environmental Policy Act of 1969

The National Environmental Policy Act (NEPA) (42 USC 4321 et seq.) declared, in part, that it is the policy of the federal government to preserve important historic, cultural, and natural aspects of the Nation's heritage. NEPA requires federal agencies to prepare environmental impact statements before making decisions about projects that may significantly affect the quality of the human environment. Title II of NEPA established the Council on Environmental Quality (CEQ). CEQ is responsible for conducting studies and research relating to ecological systems and environmental quality, ensuring that federal agencies meet their obligations under NEPA, and issuing guidelines for the implementation of this broad act. Title 40 CFR Part 1500 contains the regulations issued by CEQ for the implementation of NEPA.

1.4.1.5 Executive Order 11593 of 1971, Protection and Enhancement of the Cultural Environment

On May 31, 1971, the President issued an Executive Order emphasizing the leadership role of the federal government in preserving, restoring, and maintaining the historic and cultural environment of the nation. This Executive Order directed all federal agencies to locate and inventory all cultural resources under their jurisdiction to ensure that actions do not inadvertently affect significant cultural resources. Executive Order 11593 further directed agencies to consider the effects of actions authorized by federal permits or licenses on resources located on nonfederal lands.

1.4.1.6 American Indian Religious Freedom Act of 1978

The American Indian Religious Freedom Act (AIRFA) (Public Law [PL] 95-341; 42 USC 1996) established federal policy to protect and preserve the inherent rights of freedom for American Indians, Eskimos, Aleuts, and Native Hawaiians to believe, express, and exercise their traditional religions on federal and tribal trust lands. These rights include, but are not limited to, access to sites, use and possession of sacred objects, and the freedom to worship through traditional ceremonies and rites.

1.4.1.7 Archaeological Resources Protection Act of 1979

The Archaeological Resources Protection Act (ARPA) (16 USC 470aa-mm) amended the Antiquities Act, set a broad policy that archaeological resources are important to the nation and should be protected, and required special permits before the excavation or removal of archaeological resources from public or Indian lands. The purpose of this act was to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites that are on public lands and Indian lands. The act was also intended to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals having collections of archaeological resources and data obtained before October 31, 1979. ARPA also provides for maintaining the confidentiality of information on the nature and location of archaeological sites.

1.4.1.8 Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act (NAGPRA) (PL 101-601; 25 USC 3001 et seq.) was intended to ensure the protection and rightful disposition of Native American cultural items and burials located on federal or tribal trust lands, and in the possession or control of the federal government. NAGPRA requires federal agencies and certain recipients of federal funds (including state agencies) to document Native American human remains and cultural items within their collections, notify Native groups of their holdings, and provide an opportunity for the repatriation of these materials. This act also requires planning steps to deal with the potential inadvertent discovery and collection of Native American human remains and associated funerary objects, sacred objects, and objects of cultural patrimony on federal and tribal trust lands.

1.4.1.9 National Register Bulletin 38: Guidelines for Evaluating and Documenting Traditional Cultural Properties

In 1991, the Secretary of Interior issued a bulletin providing guidelines for Traditional Cultural Properties. This bulletin defines “traditional cultural significance” as those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. The traditional cultural significance of a historic property is derived from the role the property plays in a community’s historically rooted beliefs, customs, and practices. Properties possessing traditional significance may include religious or ceremonial sites, or locations where a community has traditionally carried out practices important in maintaining historic identity.

1.4.1.10 Executive Order 13007 of 1996, Indian Sacred Sites

On March 24, 1996, the President issued an Executive Order mandating that each executive branch agency with statutory or administrative responsibility for the management of federal lands shall, to the extent practicable permitted by law, (1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies are required to maintain the confidentiality of sacred sites.

1.4.1.11 Executive Order 13175 of 2000, Consultation and Coordination with Indian Tribal Governments

On November 6, 2000, the President issued an Executive Order recognizing the unique legal relationship between the United States and American Indian tribal governments, and mandating that federal agencies consult and collaborate with federally recognized Indian tribes as part of a process to strengthen government-to-government relationships. The Executive Order established policies for reviews of waiver applications by tribes, and established accountability practices for federal agencies in collaborating and consulting with Indian tribes.

1.4.2 California Laws, Plans, and Guidelines

1.4.2.1 California Environmental Quality Act of 1970

The California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] 21000 et seq.) states the intent of the California Legislature that all agencies of the State government that regulate activities that may affect the quality of the environment shall give consideration to preventing environmental damage, “while providing a decent home and satisfying living environment for every Californian.” CEQA further states that public agencies should not approve projects if there are feasible alternatives or mitigation measures that would substantially lessen the significant environmental effects of proposed projects. CEQA acknowledges, however, that agencies may approve projects that cause significant environmental effects if economic, social, or other conditions make alternatives or mitigation measures infeasible. CEQA also establishes policies and directions for conducting environmental analysis, documenting those studies, and allowing for public review of environmental impact reports.

Section 21083.2 of CEQA requires that the lead State agency determine whether a project may have a significant effect on unique archaeological resources. A unique archaeological resource is defined in CEQA as an archaeological artifact, object, or site about which it can be clearly demonstrated that there is a high probability that it:

- Contains information needed to answer important scientific research questions, and there is demonstrable public interest in that information;
- Has a special or particular quality, such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Measures to avoid, conserve, preserve, or mitigate significant effects on these resources are provided.

1.4.2.2 State CEQA Guidelines

The State CEQA Guidelines (California Code of Regulations [CCR] 15000 et seq.) are published by the Governor’s Office of Planning and Research for adoption by the Secretary of Resources. These guidelines provide detailed instructions on how to conduct analyses under CEQA, as well as procedures for documenting these analyses, evaluating project alternatives and mitigation measures, and soliciting review of draft environmental documents by the public and responsible agencies before making final agency decisions. The State CEQA Guidelines are binding on all public agencies in California.

Section 15064.5 of the State CEQA Guidelines notes that “a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a

project that may have a significant effect on the environment.” Agencies are expected to identify potentially feasible measures to mitigate significant adverse changes in the significance of a historical resource before they approve such projects. Historical resources are those that:

- Are listed in, or determined to be eligible for listing in, the California Register of Historical Resources (PRC 5024.1(k));
- Are included in a local register of historical resources (PRC 5020.1) or identified as significant in an historical resource survey meeting the requirements of Section 5024.1(g); or
- Are determined by a lead State agency to be historically significant.

Section 15064.5 also applies to unique archaeological resources, as defined in PRC 21084.1.

1.4.2.3 Comprehensive Statewide Historic Preservation Plan for California

In 1997, the California Office of Historic Preservation published a comprehensive planning guide for historic preservation in the state, pursuant to Section 101 of the NHPA (DPR 1997). This document was intended to “serve as a guide for decision-making; to help communicate historic preservation policy, goals, and values to all levels of government and local organizations; and to ensure that our historic resources are preserved for many generations to come.” The HPMP is intended to incorporate applicable preservation goals, concerns, and priorities described in the statewide plan.

1.4.2.4 Cal NAGPRA

Similar to NAGPRA, Cal NAGPRA provides for repatriation of Native American burials or objects of cultural patrimony found on State land or held within State-owned repositories. To date, implementing regulations have not been developed by the State.

2.0 PROJECT SETTING

This chapter begins with a brief overview of the prehistoric, ethnographic, and historic contexts of the region encompassing the Oroville Facilities. This is followed by a description of the cultural resources investigations conducted by DWR, and the results of those investigations. More detailed information on these topics is provided in the technical inventory reports prepared for archaeological and historical resources (DWR 2004a), ethnographic and ethnohistoric resources (DWR 2004b), and historical buildings and structures (DWR 2004c).

2.1 CULTURAL SETTING

2.1.1 Prehistoric Context

The Feather River region has been occupied by Native American peoples for at least 3,000 years. The Feather River provided fresh water, abundant fish and other riverine resources, and a transportation corridor. The adjacent woodlands provided oaks, numerous other plants, and game such as deer. These resources, supplemented by trade with neighboring tribal groups, provided the Konkow-Maidu with the resources they needed for food, shelter, clothing, and the pursuit of a variety of ceremonial and sacred practices.

Archaeologists working in Northern California have been researching a number of major trends, themes, and issues characterizing the prehistory of the Feather River–Lake Oroville area. Prehistoric archaeology in this region has focused on defining archaeological contexts, examining past lifeways, and studying cultural processes. Important research topics include the paleoenvironment (e.g., conditions of the vegetative communities 3,000 years ago), site-formation processes, and cultural chronology. Issues related to determining past lifeways—including technology, subsistence-settlement, social organization, demography, and ideology/religion—have also been explored. Questions concerning cultural processes have dealt mainly with the nature of hunter-gatherer adaptations.

Prehistoric peoples of the Feather River region resided in an area containing a suite of habitats embedded within grassland, scrubland, deciduous woodland, and coniferous forest biomes. Over time, the people developed subsistence adaptations increasingly focused upon the gathering and use of fish (e.g., native slow-water species and anadromous salmonids), large mammals (e.g., elk, deer, pronghorn), and acorns. These were supplemented by a host of other plants and animals. Various technological innovations were intimately tied to subsistence, including changes in weaponry (e.g., the introduction of the bow and arrow, fishing facilities), milling equipment (e.g., the shift from use of manos and metates to mortars and pestles), and textile arts (e.g., the development of basketry). Procuring additional resources was a primary goal of elaborately developed trade networks, which frequently transported goods over long distances (e.g., obsidian and marine-shell ornaments).

Trade was one aspect of the increasing elaboration of social organization through time, and development of regional religions such as the Kuksu cult. Forces affecting cultural change through time have been proposed to include localized population growth, in-migration of foreign peoples, and environmental change.

2.1.2 Ethnographic Context

Native residents of the project area spoke closely related dialects of the Konkow language, which extended throughout the Northwest Maidu or Konkow territory. Konkow is a sister language to Maidu (Northeastern or Mountain Maidu) and to Nisenan (Southern Maidu). Together, these three languages comprise the Maiduan language family, classified as a member of the Penutian language stock (Shipley 1978). The Konkow were organized in village communities in which a larger, major village provided the central ceremonial and political focus for several nearby affiliated villages. These communities incorporated three to five smaller villages, with a total population estimated at 200 people. Chiefs of these communities were known for leadership ability, wealth, and generosity (Dixon 1905; Kroeber 1925). Several such village communities have been identified in the general Oroville region, with some locations occurring within the project area (Rathbun n.d.).

Subsistence was based on a mixture of gathering, fishing, and hunting that occurred on a seasonal basis during the course of the year. Salmon, deer, acorns, and pine nuts were among the most important food items. Trade with neighboring tribes was used to supplement the locally available resource base, and to foster intertribal relationships. Elaborate ceremonies, including the Kuksu cult, were practiced during the fall, winter, and spring. Traditional competitive games provided an important opportunity for social interactions with teams from neighboring communities.

The influx of Spanish explorers, trappers, early settlers, and cattle ranchers in the early 1800s introduced diseases and disrupted both the environment and certain traditional Native American practices. With the onset of the Gold Rush in 1848, the Feather River was the site of intensive settlement and mining activities that severely affected the fishery and displaced Native American inhabitants. Some Native Americans began working for miners, ranchers, or settlers; many, however, were sent to the Nome Lackee reservation in Tehama County, only to return shortly thereafter because of poor conditions at the reservation (Jewell 1987). A second relocation of local Native Americans was undertaken in fall 1863, when almost 500 Indians were forced to march 100 miles across the Sacramento Valley to the Round Valley reservation (Hill 1978). This was a devastating march for the Maidu during which there were heavy losses, particularly among the very young and the older population. Ultimately, the Maidu experienced the loss of 80–90 percent of their population and virtually all of their lands as a result of Euroamerican colonization. Today, local traditions and festivals such as the Feather River First Salmon Ceremony are indications of the rejuvenation of traditional values, practices, and community involvement, including classes to renew the Konkow language and to teach basket making.

2.1.3 Historic Context

On the far northeastern frontier of Spanish, and then Mexican, California, the Feather River area was explored by the Spanish in the early 19th century and later exploited by fur trappers in the 1820s and 1830s. The latter incursion led to introduction of diseases that severely disrupted the indigenous Native American society. The Mexican rancho period in northern California began in the 1840s, but it was soon interrupted by the American takeover of California, and then by the Gold Rush.

Three months after gold was discovered at Sutter's Mill near the town of Coloma, John Bidwell found gold on the Feather River at what became known as Bidwell's Bar. The Feather River was a major gold-producing area, with all the social, economic, and environmental consequences found elsewhere in the mining West. By 1850, there were more than 3,000 miners in Butte County, with most of these men pursuing the relatively easily worked surface placer deposits. The miners quickly outnumbered the small Mexican and much larger indigenous population inhabiting the area and began to reshape the landscape. As mining operations became more complex and costly, mining corporations began to dominate the local industry, with the construction of reservoirs, dams, and extensive ditches. Later, hydraulic mining and dredging became the preferred means of extracting gold ore. This latter process continued well into the 20th century and is reflected in approximately 8,000 acres of dredger tailings in OWA.

Following the influx of miners to the region, the foothills and valleys along the Feather River and between the Feather and Sacramento Rivers soon became a center for ranching and agriculture—first cattle, then wheat, and later fruit, rice, and other crops. Timber harvesting was conducted first locally to support the mining industry, then on a more regional scale to provide lumber for residential and commercial use. The rise of agriculture to a preeminent position in the local economy was tied to the establishment of irrigation, including the adaptation of water-delivery systems from mining to agriculture, and the establishment of more robust and reliable transportation systems. In the 20th century, the area became an important source of hydroelectric power and a vital source of water for California.

2.2 CULTURAL RESOURCES INVESTIGATIONS

DWR completed three technical cultural resources investigations in support of the FERC relicensing process, and is continuing work on subsequent studies related to the evaluation of documented cultural resources. The three studies completed between 2002 and 2004 are:

- Archaeological and Historical Resources Inventory (DWR 2004a);
- Ethnographic and Ethnohistoric Inventory of Konkow Maidu Cultural Places (DWR 2004b); and
- Historic Properties Inventory and Evaluation: Oroville Facilities, Butte County, California (DWR 2004c).

These investigations were designed to meet the goals of the CRWG and the FERC guidelines. The objective of these studies was to gather information on the cultural resources located within the Area of Potential Effects (APE) for the Oroville Facilities in a manner consistent with the Section 106 process.

Formal evaluations of documented resources using the criteria for eligibility for inclusion in the NRHP (36 CFR 60.4) were completed for buildings and structures, and are under way for a sample of the historic-era archaeological sites. Initiation of formal evaluations for a limited number of prehistoric archaeological sites is pending further consultation with the local Maidu.

Each of the three completed studies is described briefly below. The technical reports contain sensitive information on the nature and location of cultural resources. These documents have been provided to FERC, federal and State land management agencies, the SHPO, and local tribal governments, but are not available to the general public. Versions of the archaeological and ethnographic/ethnohistoric inventory reports that did not contain confidential resource information were prepared by DWR and distributed to the public. Confidential resource information necessary for the HPMP (e.g., maps and tables providing sensitive resource locations) is provided in selected appendices not included for general distribution.

2.2.1 Archaeological and Historical Resources Inventory

The archaeological and historical resources inventory involved extensive background research, the collection of oral histories, and a five-part field strategy. This multiphase field strategy included:

- The re-recording of previously documented archaeological sites in the APE;
- A complete archaeological inventory of the Lake Oroville fluctuation zone accessible in 2002 and 2003 (between 690 and 900 feet elevation);
- A probabilistic sampling of lands above the fluctuation zone;
- A focused inventory of areas deemed to be historically sensitive based on background research; and
- The inspection of specific parcels at developed and proposed recreational facilities (e.g., campgrounds).

The archaeological and historical resources inventory effort resulted in the survey of approximately 15,500 acres of land within the APE. This represents approximately 50 percent of the land that is above the minimum pool elevations of the project reservoirs. The field inventory was conducted with the participation of Native American representatives from Berry Creek, Enterprise, and Mooretown rancherias (DWR 2004a).

2.2.2 Ethnographic and Ethnohistoric Inventory

The investigation into the ethnography and ethnohistory of the Konkow-Maidu involved an extensive study of published and unpublished literature and archival materials, as well as numerous oral interviews with knowledgeable local Elders. When feasible, these interviews were conducted in the field to discuss areas and resources of continuing concern. A total of 88 oral interviews have been conducted and documented (DWR 2004b).

To facilitate coordination and communication with the local Maidu community during the relicensing process, the MAC was established. The MAC provides an informal forum for discussing cultural resources issues pertinent to the relicensing. Membership in the MAC includes representatives from DWR and the five local Maidu groups, and has held regular meetings for the last 3 years. Membership and participation are voluntary.

2.2.3 Buildings and Structures Inventory and Evaluation

The inventory and evaluation of the 16 buildings, structures, and objects associated with the Oroville Facilities began with a field reconnaissance, followed by extensive research into DWR records, photographs, and historic maps to help ascertain specific dates of construction for each feature. Published literature and unpublished archival information was used to help develop the historical context for these resources. These resources were evaluated against the criteria for inclusion in the NRHP (36 CFR 60.4), both as individual resources and as part of a historic district (DWR 2004c).

2.3 DOCUMENTED RESOURCES WITHIN THE APE

The above investigations led to the identification of more than 1,000 cultural resources within the APE for the Oroville Facilities. As shown in Table 2.3-1, this total includes 897 documented archaeological sites, 144 locations of ethnographic and/or ethnohistoric importance, and 16 buildings and structures. These resources are summarized below, with confidential tables and mapped information provided in the appendices. With more than 15,000 acres of land within the Oroville Facilities project boundary not yet subject to archaeological inventory, it is expected that many hundreds of unidentified sites are also present in the APE.

**Table 2.3-1. Summary of cultural resources
within the Area of Potential Effects.**

Property Type	Number
Archaeological or Historical Resources	897
Ethnographic or Ethnohistoric Resources	144
Buildings and Structures	16
Total	1,057

2.3.1 Archaeological and Historical Resources

Of the 897 documented archaeological sites within the APE, 803 were located and documented in 2002 and 2003 (DWR 2004a). The remaining 94 sites were located at lower elevations within the bodies of water associated with the project, and were not accessible during the recent investigations. Based on the available records, 93 sites contain both prehistoric and historic-era materials, 325 sites are from the prehistoric period exclusively, and 479 contain only historic-era materials. In other words, 418 sites contain evidence of use during the prehistoric past, while 572 sites were used during the historic period. None of these resources has been formally evaluated for inclusion in the NRHP.

A table of the documented archaeological and historical resources is provided in Appendix A. Site locations have been included in a Geographic Information Systems (GIS) database, with electronic copies of this database available on a compact disc. This sensitive information on the nature and location of these resources is confidential, and is subject to limited distribution.

2.3.1.1 Prehistoric Archaeological Resources

Table 2.3-2 lists the prehistoric sites according to the seven site categories described below. These assignments are considered preliminary because of the limited amount of information available from surface inventories and because the available site records for the 93 prehistoric sites that were not accessible in 2002 or 2003 may not be accurate.

**Table 2.3-2. Prehistoric archaeological sites
within the Area of Potential Effects.**

Site Category	Approximate Number of Sites
Bedrock Milling	150
Open-air Residential	135
Limited Lithic Scatter	125
Cave or Rock Shelter	2
Rock Art	2
Quarry or Workshop	2
Cemetery Area	2
Total	418

Bedrock Milling Sites are generally associated with oaks or other seed-producing trees, both in association with occupation sites and in isolation. These sites are ubiquitous throughout Northern California and can occur as single cupules or outcrops with 50 mortar holes or more. Sites assigned to this category represent approximately 36 percent of the prehistoric site total.

Open-air Residential Sites are also sometimes referred to as villages or base camps. The larger versions are more commonly called villages, smaller ones temporary camps. Typically, these sites may include communal ceremonial structures, midden deposits, house or storage pits, cooking features, groundstone, and a generally wide variety of

artifacts. These sites tend to be located near creeks and streams; many open-air residential sites are presumed to lie within the inundated portions of Lake Oroville. Approximately 33 percent of the prehistoric sites recorded in 2002 and 2003 are assigned to this site category.

Limited Lithic Scatter Sites are those sites that contain a sparse deposit of flakes that may be from one or more parent material. Frequently, these have been identified as temporary camps or secondary workshop areas. Because of their nature (i.e., small and sparse), these sites can be overlooked during archaeological field surveys. Approximately 30 percent of the prehistoric sites are considered to be limited lithic scatters.

Cave and Rock Shelter Sites are those occupation sites that are protected by a cave or rock overhang. Preservation of organic materials is more likely at these sites than at open-air residential sites where deposits are more commonly buried. These types of sites also lend themselves to the creation of rock art—a separate site category. Less than 1 percent of the sites within the APE are located within caves or rock shelters.

Rock Art Sites are locations where a suitable outcrop surface has been decorated with one or more petroglyphs. These sites are frequently associated with larger occupation areas and/or are near watercourses. Less than 1 percent of the documented prehistoric sites contain rock art elements.

Quarry and Workshop Sites are locations where raw lithic materials such as chert, basalt, rhyolite, or obsidian have been extracted and, frequently, processed to some degree before transportation to another location. Quarries are located at the stone source, and these initial reduction areas are generally nearby. Similarly, groundstone workshops tend to be found near raw material sources such as granite or steatite outcrops. As with the other miscellaneous site types, less than 1 percent of the documented prehistoric resources match this site category.

Cemetery Areas are those locations containing evidence of multiple human burials. These sites are generally located within or in proximity to residential sites, but can occur as isolated resources. Native American cemeteries are unmarked and therefore are difficult to locate unless they are exposed during planned excavation, by erosional forces, or by the activities of looters. Less than 1 percent of the 325 documented prehistoric sites are considered cemetery areas.

2.3.1.2 Historic-Era Archaeological Sites

The 572 archaeological sites containing evidence of historic-era activities are related to 1 or more of the 6 historic themes noted in Table 2.3-3 and described below. These themes, and the representative archaeological sites, are interrelated. For example, a mining operation is likely to have relied on a ditch to provide water and to have been accessed by a road or trail, and may have involved a developed settlement. For purposes of Table 2.3-3, each resource has been assigned to a primary theme.

Table 2.3-3. Historic-era archaeological sites within the Area of Potential Effects.

Primary Historic Theme	Number of Sites
Transportation	184
Settlement	166
Mining	125
Water Systems	75
Industry and Commerce	11
Agriculture and Development	4
Other	7
Total	572

Transportation Properties such as trail systems, road systems, and railroads have all left marks on the landscape. More ephemeral locations, such as ferry crossings, may be identified through documentary sources, but stone walls, tracks, watering troughs, bridges, trestles, tunnels, etc., may all mark portions of a transportation system. Nearly 33 percent of the documented historic-era sites are primarily transportation properties.

Settlement Properties are those sites containing the remains of residences, shelters, other structures, or refuse deposits containing domestic debris. Other evidence of settlement can include features such as fences or landscaped elements such as gardens and orchards. Approximately 29 percent of the historic resources were assigned to the settlement theme.

Mining Properties include a wide range of features and structures left behind by exploration, extraction, or processing activities. Physical indications of mining activity might include exploration pits, trenches, claim markers, historic artifact deposits, camp remains, adits, shafts, waste material piles, mining tools, ditches or flumes, or milling equipment. Twenty-two percent of the recorded historic-era sites are related primarily to mining.

Water Systems were established by miners and settlers moving into the area. Collection, storage, and transportation of water began on a small scale to meet the needs of individuals, were enlarged for subsequent mining and agricultural operations, and grew to become the hydroelectric generation facilities that are a large part of the landscape today. Wells, pumps, cisterns, ponds, reservoirs, ditches, flumes, gates, dams, and transmission lines are all features associated with the collection and use of water. Approximately 13 percent of the historic-era resources are related to the use, storage, or transport of water.

Industrial/Commercial Properties might include commercial quarries, mills, kilns, smithies, or other processing structures. Sites containing evidence of commercial timber harvesting are also within this category. Telephone and telegraph lines might be found connecting these locations. About 2 percent of the historic sites are consistent with industrial or commercial activities.

Agricultural Properties were operated on a small scale in the project area until the 1880s, after which more developed commercial practices were instituted. Examples of agricultural properties include houses (or their remains) and outbuildings, harvesting machinery, storage buildings, walls or fences, orchards, corrals, water systems, and refuse dumps. Approximately 1 percent of the documented sites in the APE were assigned primarily to this theme.

2.3.1.3 Ethnographic and Ethnohistoric Resources

The ethnographic and ethnohistoric inventory led to the identification of 144 ethnographic locations based on archival data and information from interviews with local Maidu. Based on the nature of the uses most commonly undertaken at each of these locations, they were assigned to 1 of 14 categories, as shown in Table 2.3-4. Appendix B contains a series of maps that provide the general location of these resources. These maps are general in nature, and are not considered confidential. The evaluation of these 144 resources as Traditional Cultural Properties has not been completed.

Table 2.3-4. Ethnographic and ethnohistoric resources within the Area of Potential Effects.

Site Category	Number of Locations
Village	30
Cemetery	3
Camp	3
Fishing Ground	29
Spawning Ground	13
Hunting Ground	2
Gathering Area	7
Swimming Hole/Picnic Area	7
Ceremonial Site	2
Mythological Site	12
Petroglyph	2
Historic Event/Battle Site	2
Trail	11
Place Name	21
Total	144

2.3.1.4 Buildings and Structures

As indicated in Table 2.3-5, a total of 16 buildings and structures associated with the Oroville Facilities were documented and evaluated against the NRHP criteria. Appendix C contains a map showing the location of these 16 structures. Two of these resources, Oroville Dam and the Hyatt Pumping-Generating Plant, are considered to be eligible for inclusion in the NRHP as individual properties under the “exceptional importance” criterion (36 CFR 60.4[g]). These two structures, along with 12 additional facilities, are considered contributing elements to the proposed Oroville Division Historic District under NRHP criteria A and C at the State level of significance because of the historical significance of the Oroville Facilities and the importance of many of these facilities within the field of engineering and design (DWR 2004c).

Two historical structures, the Thermalito Fish Hatchery Annex and the Thermalito Diversion Dam Power Plant, were built in the 1980s and are not considered eligible for listing in the NRHP either as individual resources or as elements of the proposed National Register district.

Table 2.3-5. Buildings and structures within the Area of Potential Effects.

Facility	Date Built	Individually Eligible for NRHP Listing?	Contributing Element to the Historic District?
Lake Oroville Visitors Center	1972-1974	No	Yes
Oroville Dam	1961-1968	Yes	Yes
Oroville Peripheral Dams: Parish Creek and Bidwell Bar Canyon	1966-1968	No	Yes
Hyatt Pumping-Generating Plant and Intake Structure	1963-1969	Yes	Yes
Oroville Area Control Center and Switchyard		No	Yes
DWR Field Division Facility	1968-1969	No	Yes
Fish Barrier Dam	1962-1964	No	Yes
Visitor Viewing Platform	1966-1968	No	Yes
Feather River Fish Hatchery	1966-1967	No	Yes
Thermalito Fish Hatchery Annex	1989	No	No
Thermalito Diversion Dam	1962-1968	No	Yes
Thermalito Diversion Dam Power Plant	1984-1989	No	No
Thermalito Power Canal	1965-1967	No	Yes
Thermalito Power Plant	1964-1969	No	Yes
Thermalito Forebay	1965-1968	No	Yes
Thermalito Afterbay	1965-1968	No	Yes

3.0 PROJECT-RELATED EFFECTS

Project-related effects on cultural resources include ongoing activities and potential future actions that could affect archaeological sites, ethnographic/ethnohistoric resources, or buildings and structures. The nature and severity of those effects on various resource types is described below. Pending formal evaluations of the archaeological and ethnographic resources documented within the APE, this discussion is general, rather than site-specific.

3.1 TYPES AND CAUSES OF EFFECTS

Impacts to the integrity of cultural resources can come from a variety of sources, including the ongoing effects of reservoir level fluctuations, recreation and public use, operational activities such as woody debris collection and maintenance actions, and natural processes. Future actions, such as the construction of new recreational facilities or the implementation of wildlife habitat enhancements, could also affect historic properties.

Understanding these impact mechanisms and developing management measures to address them is the basis of the HPMP. For example, impacts from public use may be managed by discretionary actions related to modifying these public activities. Conversely, impacts generated by fluctuations in reservoir levels might be addressed through actions such as site stabilization or data recovery.

3.1.1 Reservoir Level Fluctuations

Archaeological sites and ethnographic resources located within the fluctuation zone of Lake Oroville (i.e., at elevations between 640 and 900 feet) are periodically subject to inundation, exposure to the air, and the effects of water movement along the shoreline. The effects of reservoir level fluctuations include stripping of topsoil, terracing of slopes, movement of smaller artifacts and sediments, more rapid loss of organic materials sensitive to cycles of inundation and exposure, and potential burial of archaeological deposits under sediment. The erosional impact of waves, whether generated by wind or motorized boats, is of particular concern to archaeological sites containing subsurface deposits or materials subject to movement.

The location of the resource within the fluctuation zone, degree of slope, erosiveness of the soil, nature of the resource, and amount of exposure to wind- and boat-driven wave action are all variables affecting the magnitude and severity of these impacts. For example, sites at higher elevations within the fluctuation zone are only sporadically inundated, while those at lower elevations are normally inundated; those in between are inundated and exposed on a regular basis. Sites on relatively flat ground may be less likely to be affected by water movement, and resources such as isolated bedrock milling features may be less susceptible to the effects of reservoir fluctuation.

Some resources are located below the minimum pool for Lake Oroville (elevation of 640 feet) or are almost always inundated within other water storage facilities. The condition of these resources, and the nature of project-related impacts, is not currently known.

3.1.2 Recreation and Public Use

Recreation and other aspects of public use are affecting archaeological sites and ethnographic resources. Effects have been caused by direct physical alterations (e.g., trail or campground construction), inadvertent damage from the use of motorized wheeled vehicles off developed road surfaces, and intentional actions such as vandalism or looting. Sites near developed recreation facilities and other areas easily accessible by wheeled motorized vehicles are most susceptible to these impacts.

3.1.3 Operations and Facilities Maintenance

Project-related operations such as woody debris collection and management, wildlife habitat enhancement, and the extraction of rock from the historic dredge tailings in OWA can adversely affect archaeological sites and ethnographic resources. Maintenance activities can vary widely depending on the facility and the need for repair. Low-impact activities such as painting and garbage collection should not cause any impacts on archaeological sites beyond those already created by the construction of the particular facility. However, other activities, such as the collection of woody debris at McCabe Creek, have the potential to adversely affect historic properties.

Facilities maintenance could also affect the values of historical buildings and structures. For example, the use of inappropriate materials, structural additions, and other actions could affect elements of these resources that make them eligible for inclusion in the NRHP. Conversely, the lack of routine maintenance of these structures could lead to deterioration and eventual loss of the historic property.

3.1.4 Natural Processes (Erosion and Bioturbation)

Not all resources are being affected by project-related activities. However, natural processes caused by wind, water, plants, and animals also can adversely affect archaeological resources. These disturbances can affect the integrity of the resource, reducing the informational value of certain site types. For example, natural erosion by wind and water has the effect of transporting soils either downhill or downwind. In the case of water-caused effects, gullies may also form, widening with each wet season. As gullies widen, they may bisect sites or deepen to the point where banks collapse, further affecting site integrity. Artifacts may be transported along with the soils, and deposited away from original (and meaningful) site contexts. Small surface artifacts are particularly susceptible to these processes. Archaeological sites can contain organic remains (e.g., wooden implements and faunal remains) and metal items (e.g., cans) that are subject to the effects of exposure and deterioration.

Soil discontinuities, mixing, or other disturbance of sites and features can be caused by root or underground animal burrowing. In particular, rich midden soils frequently are

affected by these disturbances as plants and animals are drawn to the softer, richer loci. Disturbances caused by bioturbation may be vertical or horizontal and may continue far below the current ground surface. The movement, displacement, and loss of archaeological materials can significantly reduce the scientific values of these resources.

3.2 PRELIMINARY ASSESSMENT OF PROJECT-RELATED EFFECTS

Pending completion of NRHP evaluations of the 897 archaeological and historical resources and 144 ethnographic and ethnohistoric locations documented within the APE for the Oroville Facilities, site-specific information on the nature and severity of effects generally is unavailable. However, sufficient information has been compiled on the nature of the resources and the ongoing impact mechanisms affecting these resources to develop the management measures described in Chapter 4.0.

4.0 MANAGEMENT MEASURES

This chapter describes the measures, protocols, and programs designed to address ongoing effects, proposed future actions, and the proactive stewardship of historic properties within the Oroville Facilities. The implementation of these measures, adherence to the protocols, and development of the programs will meet the goals and objectives of the HPMP described in Chapter 1.0, and will provide actions needed to comply with Section 106 of the NHPA. Specific management measures to be implemented on lands managed by BLM or USFS would be conducted in consultation with these agencies.

4.1 MEASURES TO ADDRESS ONGOING EFFECTS

As described in Chapter 3.0, a variety of possible effects are present within the APE for the Oroville Facilities. These impact mechanisms are understood on a projectwide basis, and a preliminary analysis of how these impacts could affect historic properties has been made. However, site-specific information on NRHP eligibility, which is needed to assess whether historic properties are being adversely affected, is not available. Consequently, this chapter describes a suite of available management measures or tools that can be used based in specific situations. These measures include:

- Resource Monitoring
- Impact Avoidance
- Protection/Stabilization
- Data Recovery

Figure 4.1-1, a site management decision diagram, depicts the process DWR can use to assess ongoing effects over time, and clarifies how management decisions will be made on a site-by-site basis.

4.1.1 Resource Monitoring

Baseline information on site conditions and ongoing impacts was gathered during the archaeological and historical resources inventory (DWR 2004a). This information provides valuable insight into the nature, location, and magnitude of a variety of ongoing effects. These inventory data were used to help prepare Figure 4.1-1. However, the available information was gathered from surface observations only, and without the benefit of formal resource evaluations. In concert with the program for conducting these evaluations (see Section 4.4), monitoring the condition of resources is essential to assessing the nature and severity of ongoing effects.

Monitoring does not resolve potential project-related effects on historic properties. However, when each historic property is treated within a monitoring program, new and/or ongoing impacts can be identified over time, and the effectiveness of other

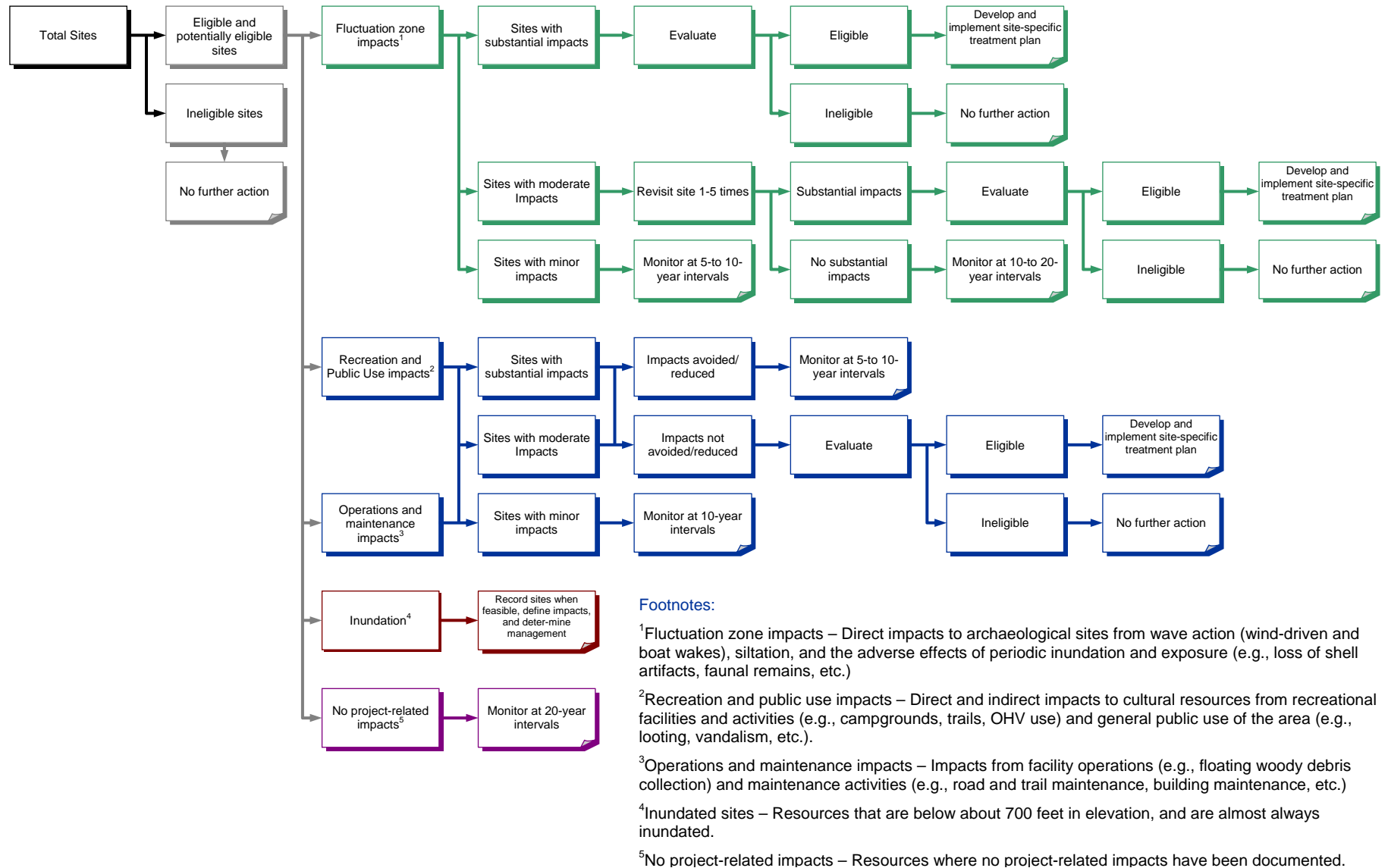


Figure 4.1-1 -- Site Management Decision Diagram

management measures that may have been implemented for site protection can be evaluated.

The California Archaeological Site Stewardship Program (SSP) will be used for the routine monitoring of site conditions and potential impacts, particularly from public use. This existing program is managed on a statewide basis by DPR, and has been conducted successfully at the Oroville Facilities. The SSP is managed by State employees, but is implemented through volunteers from the local community who are trained and certified as site monitors. This program is cost effective, improves the oversight of archaeological resources on public lands, and helps foster historic preservation in the local community.

As indicated in Figure 4.1-1, a tiered program of site monitoring has been developed for the Oroville Facilities. This routine monitoring is intended to collect information on site conditions on a regular basis. In situations where no project-related impacts have been identified, or where ongoing impacts are not evident, sites will be monitored on a 20-year cycle. More frequent site monitoring (e.g., 5-year cycles) will be used as necessary in situations where the magnitude of impacts is greater, or the nature of the resource indicates that more frequent oversight is appropriate.

In addition to this routine monitoring program, treatment plans for individual resources may call for a site-specific monitoring program, such as during certain times of the year, or on an annual basis. Monitoring through the SSP will be supplemented, as necessary, by DWR using professional archaeologists. This supplemental monitoring will be used primarily when site-specific monitoring requirements have been developed as a component of a treatment plan.

As shown in Figure 4.1-1, there are some situations—particularly in relation to the effects of reservoir level fluctuation on certain prehistoric site types—where the nature and magnitude of impacts is not clearly understood. In these situations, a program of revisiting sites one to five times is planned to determine whether these impacts are substantial. If the impacts are substantial, resource evaluations will be conducted to determine NRHP eligibility (see Section 4.4). If the resource is found to be NRHP eligible, a site-specific treatment plan will be developed. If the revisits to the site lead to the determination that the ongoing effects are not significant, the site will be monitored periodically on a 10- or 20-year cycle.

Each monitoring visit will include:

- A comparison of the resource as last recorded with its present condition;
- A specific evaluation of any new impacts;
- An assessment of the effectiveness of any specific management measures previously implemented; and
- Formal recordation (photographs, maps) of observed changes.

A standardized monitoring form will be developed to record this information. Reporting requirements relevant to the monitoring effort are described in Chapter 5.0.

It should be noted that the monitoring of sites within the reservoir is dependent upon access to these resources. DWR will opportunistically monitor sensitive sites in the lower portions of the reservoir that are exposed on an infrequent basis, but will not draw down the reservoir to facilitate site monitoring.

4.1.2 Impact Avoidance

The preferred means of protecting historic properties is to stop or avoid damage to or alteration of these resources. Revising existing management direction (e.g., modifying maintenance procedures, altering public access) can provide the most efficient means to avoid or reduce ongoing impacts to cultural resources. This approach is most appropriate in situations where the source of the impact is apparent, and changing existing procedures does not conflict significantly with other management goals, objectives, and priorities. Routine resource monitoring would be used to track the effectiveness of these impact avoidance measures.

The avoidance of impacts to historic properties from proposed future actions is described in Section 4.2.

4.1.3 Protection/Stabilization

If avoidance through revised management direction is not feasible, the use of physical measures to protect historic properties from project-related effects may be necessary. These measures could include:

- Placement of restrictive/protective signs;
- Installation of fencing, berms, plants, barriers, or otherwise physically blocking access;
- Moving or modifying existing facilities such as boat ramps or access roads that are affecting historic properties; or
- Stabilizing eroding surfaces within archaeological sites through use of protective covers (e.g., fabric, rock or soil capping), vegetative plantings, or engineered modifications to slopes.

The decision to use physical protection/stabilization measures usually will be made following the evaluation of NRHP eligibility and development of a site-specific treatment plan. However, DWR may decide to undertake these measures absent formal evaluations.

The effectiveness of site protection/stabilization measures will be monitored and tracked so that more refined information on the effectiveness of these measures can be gathered and used for future decisions.

4.1.4 Data Recovery

In some cases, substantial ongoing effects on historic properties cannot be adequately reduced through impact avoidance, site protection, or stabilization measures. If the imminent loss of a historic property cannot be avoided, data recovery may be implemented. Archaeological data recovery consists of the excavation, collection, and analysis of sufficient materials to provide a reasonable amount of information relevant to scientific research values. Data recovery would be conducted on a site-specific basis following development of a treatment plan and consultation with appropriate parties (see Chapter 6.0). Consultation with local Maidu tribes would be conducted if the historic property contains prehistoric archaeological materials. Data recovery at prehistoric sites will involve opportunities for tribal participation. Reporting requirements relevant to data recovery are noted in Chapter 5.0.

4.1.4.1 Curation

As requested by the local Maidu, archaeological materials collected in conjunction with data recovery efforts or resource evaluations (see Section 4.4) will be housed at a local curation facility that meets the federal guidelines established in 36 CFR 79. This facility will be established by DWR in coordination with the local Maidu. The curation of materials collected from sites located on federally managed lands will be determined in consultation with the appropriate federal agency (BLM or USFS) in conjunction with the required ARPA permits.

4.2 PROTOCOLS FOR PROPOSED FUTURE ACTIONS

Future development actions, particularly those that involve ground disturbance, could adversely affect historic properties. However, there are also a number of actions that could be conducted by DWR at the Oroville Facilities that do not have the potential to affect historic properties.

4.2.1 Exempt Actions

Some project-related activities do not have the potential to affect historic properties (e.g., replacing portable picnic tables, routine maintenance such as garbage removal or restroom maintenance). A list of actions that would not affect historic properties is provided in Appendix D. These activities do not require further Section 106 compliance efforts. If DWR identifies additional standard actions that it finds have no potential to affect historic properties, it may revise the list in Appendix D and distribute the revised list for review and comment to the interested parties.

4.2.2 Nonexempt Actions

Proposed future actions not listed in Appendix D require the consideration of potential effects on historic properties. On an annual basis, DWR will compile a list of proposed nonexempt development actions associated with the Oroville Facilities. This annual project review list will document the nature and location of the proposed action, and

indicate what, if any, cultural resources tasks are anticipated for each action. The annual project review list will indicate which of the following four project classes is relevant to each proposed nonexempt action:

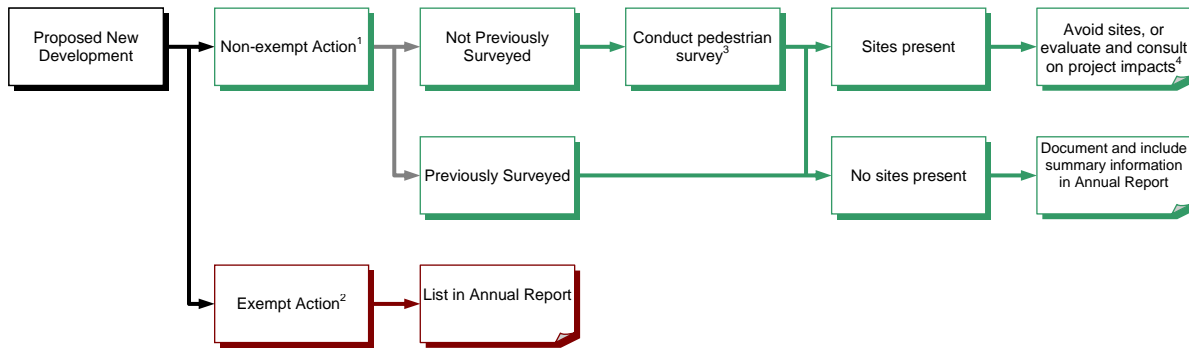
- Class I—inventory complete, no historic properties present;
- Class II—inventory complete, historic properties present but avoided;
- Class III—inventory complete, historic properties potentially affected; or
- Class IV—inventory needed.

The list will be submitted to the local Maidu tribes, federal land management agencies (BLM and USFS), DPR, and the SHPO. If nonexempt development actions are proposed but not identified on the annual list, DWR will consult with the appropriate parties on a case-by-case basis.

As depicted in Figure 4.2-1, nonexempt actions will fall into one of two categories: those located in areas previously inventoried for cultural resources and those in areas that have not been adequately inventoried. For activities planned in areas that have been inventoried, DWR will use the results of the previous inventory to determine whether the proposed action could affect historic properties. If no historic properties exist, or if the project can be designed and implemented in a manner such that there would be no effects on these resources, this determination will be noted on the annual project review list and no further action under Section 106 will be required.

If the proposed action is in an area that has not been adequately inventoried for cultural resources, appropriate surveys will be conducted to identify and document potential historic properties. These inventories will be conducted in consultation with appropriate agencies and the local Maidu. Technical reports will be prepared in accordance with the requirements of Chapter 5.0.

If the proposed action could adversely affect historic properties, a site-specific treatment plan intended to resolve those effects will be developed by DWR and submitted to appropriate agencies for review and comment. If the proposed action could affect a Traditional Cultural Property or an NRHP-eligible archaeological site containing prehistoric materials, DWR will submit the treatment plan to the local Maidu. DWR will give the interested parties 30 days to comment on the proposed action and the measures intended to resolve potential adverse effects on historic properties. Meetings between DWR and the interested parties may be held to facilitate this consultation. Following the 30-day comment period, DWR will submit the site-specific treatment plan to the SHPO, along with comments received from the interested parties, for review and comment.



Footnotes:

¹Non-exempt action – Undertakings with the potential to adversely affect significant cultural resource values (e.g., projects involving new ground disturbance). List of anticipated non-exempt projects would be provided to the Tribes on an annual basis for informational purposes, or Tribes would be contacted when a new proposed non-exempt action was identified.

²Exempt actions – Undertakings with no potential to adversely affect significant cultural resource values (e.g., replacing portable picnic tables, replacing windows in historic buildings with in-kind materials). A specific list of these exempt actions would be described in the HPMP.

³Conduct pedestrian survey – Surveys would be conducted by professional archaeologists in accordance with applicable permits (e.g., Archaeological Resources Protection Act permit from BLM). Participation by Native American archaeological technicians or trainees in these surveys may be invited.

⁴Avoid sites or evaluate and consult on project impacts – Preferred action would be to avoid potential impacts to sites. If potential impacts to sites cannot be avoided, formal evaluation would be conducted to determine if the resource is eligible to the National Register or the California Register. For resources determined to be eligible, measures to reduce the adverse effects of the proposed project would be developed. Consultation in these situations would include DWR, DPR, FERC, SHPO, Native American Tribes, and federal agencies, if appropriate (i.e., all or portion of proposed action is on federally managed land).

Figure 4.2-1 -- Protocols for Proposed Future Actions Diagram

4.3 PROGRAM FOR FUTURE ARCHAEOLOGICAL INVENTORY

In addition to the inventories that may be required for proposed future actions (Section 4.2), DWR will develop and implement a program for future archaeological inventory. This program addresses two primary objectives:

- Complete the inventory of lands within Lake Oroville (i.e., lands below 690 feet to 640 feet in elevation); and
- Complete the inventory of other lands within the APE not covered during the recent archaeological and historical resources inventory (DWR 2004a).

These inventories will provide for more complete information on the historic properties within the APE, and facilitate the planning and implementation of future proposed actions. The inventories will be conducted in consultation with BLM and USFS (as appropriate), DPR, and the local Maidu. Opportunities for participation in these surveys by members of the local Maidu community will be provided. Reporting requirements associated with these inventories are described in Chapter 5.0. The implementation schedule is noted in Chapter 6.0.

4.3.1 Inventory of Inundated Lands

The inventory of lands within Lake Oroville located below 690 feet in elevation is dependent on the reservoir level falling sufficiently below this elevation to allow for an effective and efficient inventory. A minor drop below this elevation would expose a limited amount of land, and the soil may remain too moist to allow for a pedestrian inventory. Similarly, the lower elevations would need to be exposed long enough to allow DWR to arrange for, mobilize, and conduct the pedestrian inventory. Consequently, this inventory will be conducted by DWR on an opportunistic basis.

4.3.2 Inventory of Other Unsurveyed Lands

Approximately 15,000 acres of land within the Oroville Facilities project boundary was not subjected to a pedestrian archaeological inventory. Completion of this inventory is needed to identify and document unidentified archaeological resources, to facilitate the planning and implementation of proposed future actions noted in Section 4.2, and to assist with cultural resources management during emergencies (see Section 4.7).

4.4 PROGRAM FOR FUTURE RESOURCE EVALUATIONS

Of the 1,057 cultural resources documented within the APE for the Oroville Facilities, only 16 have been formally evaluated against the criteria for inclusion in the NRHP. The remaining 897 archaeological and historical resources and 144 ethnographic and ethnohistoric locations are currently unevaluated. The evaluation of the ethnographic and ethnohistoric locations has been initiated, as has the evaluation of a sample of the historic-era archaeological resources. The evaluation of a limited number of prehistoric archaeological sites subject to ongoing project-related effects is also under way. Draft technical reports documenting the results of the ongoing evaluations will be prepared and submitted to appropriate parties by DWR as they become available.

In addition to site-specific evaluations that may be required in conjunction with proposed future development actions addressed in Section 4.2, DWR will also implement a broader program of resource evaluations consistent with the NHPA and State requirements (i.e., PRC Section 5024).

The NHPA authorizes the Secretary of the Interior to maintain and expand the NRHP, including districts, sites, buildings, structures, and objects that are of significance in American history, architecture, archaeology, engineering, and culture. Determining the eligibility of a resource for inclusion in the NRHP is guided by the significance criteria set out in 36 CFR 60.4, which states:

The quality of significance in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures and objects that possess integrity of location, design, setting, materials, workmanship, feeling, association, and:

- a. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- b. That are associated with the lives of persons significant in our past; or
- c. That embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d. That have yielded, or may be likely to yield, information important in prehistory or history.

Similar evaluation criteria have been established for the California Register of Historical Resources (CRHR). Because resources determined eligible for inclusion in the NRHP are, by definition, also eligible for listing in the CRHR, separate evaluations for the CRHR are not anticipated.

DWR acknowledges that archaeological excavations result in impacts to these properties, and that members of the local Maidu community have concerns about excavations at prehistoric sites, especially those that may contain Maidu burials. Consequently, DWR intends to implement a focused resource evaluation program that meets statutory requirements and provides sufficient information to:

- Assess and resolve ongoing project-related effects on historic properties;
- Allow for informed management decisions relative to sites that have not been formally evaluated; and
- Enhance the public understanding of these resources and the need to protect them (see Section 4.5).

To accomplish these objectives, DWR will complete the formal evaluations of a 10 percent sample of the prehistoric archaeological sites located within the Lake Oroville fluctuation zone. Additional resource evaluation needs will be identified upon completion of this work and the historic-era site evaluations, with the emphasis on resources subject to substantial ongoing project-related effects.

Resource evaluations will be conducted in accordance with an evaluation work plan. The evaluation plans will draw from those previously prepared for the Oroville Facilities, and will be provided to appropriate agencies for review and comment. Evaluation plans involving prehistoric resources will be submitted to the local Maidu tribes with a request for comments. The schedule for implementing these evaluations is described in Chapter 6.0. Reporting requirements are provided in Chapter 5.0.

4.4.1 Curation

As noted in Section 4.1.4, archaeological materials recovered during these evaluations will be curated at a local facility to be established by DWR. This facility will meet the guidelines for curation set forth in 36 CFR 79.

4.5 PUBLIC INTERPRETATION PROGRAM

Because of the extensive public use of the Oroville Facilities and the proximity of the city of Oroville, DWR will implement a Public Interpretation Program for the Oroville Facilities. This program is intended to increase public awareness of and appreciation for cultural resources. Increased awareness of resource values and the need to protect these resources will help reduce intentional and unintentional damage to these resources. This program will be implemented in coordination with DPR, with input from BLM, USFS, the local Maidu community, and other interested parties.

The program will include components to be implemented within the project boundary, as well as the use of materials and educational opportunities within the local community. For example, the results of the ongoing cultural resources investigations will be made available to the public through various programs. Aspects of these programs may include interpretive signs, brochures, displays, flyers, and other materials on cultural resources to be provided at high-visitation sites (e.g., the Lake Oroville Visitors Center, campgrounds, marinas, trailheads) within the Lake Oroville State Recreation Area (LOSRA). Other components of the Public Interpretation Program may include the use of kiosks, pamphlets for use on self-guided tours emphasizing cultural resources, or the incorporation of prehistoric and historic information in campfire programs.

To reach a broader audience in the local community, the Public Interpretation Program for cultural resources may include the use of newspaper articles, videos, television or radio items, or other materials for broad distribution (e.g., within the local school system). DWR will also help support ongoing local Native American events and festivals. Opportunities to set aside areas suitable for the collection of traditionally used plant materials by the local Maidu community will also be considered within the Public Interpretation Program.

This program will be implemented so that sensitive cultural resources are not inadvertently exposed to increased impacts from public use.

4.6 PROCEDURES FOR INADVERTENT DISCOVERIES

There is the possibility that undocumented archaeological resources will be discovered within the Oroville Facilities. These discoveries may be made by members of the public, agency staff, local tribal members, or construction personnel. It is expected that information about such discoveries usually will come to the attention of DPR or DWR staff. These agencies will ensure that information about such discoveries is shared among them. If the discovery is made on federal land, DWR will notify BLM or USFS, as appropriate.

DWR will ensure that the find is adequately documented, mapped, and incorporated into the cultural resources database for the project. Appropriate management actions, if any, will be determined at this time.

If the discovery involves an archaeological resource that is at risk of imminent damage through construction-related activities, potentially destructive work will be halted. DWR will ensure that an evaluation of the discovery is made by a qualified archaeologist. If the discovery is determined to be of recent origin or an isolated artifact, construction will be resumed. If the discovery represents a potential historic property, appropriate DPR record forms will be completed, and written recommendations will be prepared and submitted in accordance with Chapters 5.0 and 7.0. Consultation with appropriate agencies and local Maidu tribes will be conducted, as necessary. Potentially destructive construction work will resume only after written authorization is provided by DWR.

4.6.1 Treatment of Human Remains

Procedures for the treatment and disposition of human remains encountered during archaeological inventory and excavation efforts will be described in the work plans associated with those activities and will be implemented accordingly.

In the event that human remains are identified in non-archaeological contexts within the project area, applicable State and federal laws will be followed. The requirements of NAGPRA will be followed if human remains or objects of cultural patrimony are discovered on lands managed by BLM or USFS. If the discovery is made on State or private lands, California Health and Safety Code Sections 7050.5 and 7052, and PRC Section 5097 will be followed.

4.7 PROCEDURES FOR EMERGENCY SITUATIONS

Natural and manmade disasters are unpredictable events that can directly or indirectly affect historic properties. For example, wildfires and activities associated with the control and suppression of such fires could result in the loss of historically significant buildings and structures or physical damage to archaeological sites. When such events present a risk to human life or property, DWR must respond by implementing emergency procedures. The specific procedures to be taken are dictated by the nature and location of the emergency.

The protection of historic properties will be considered during emergencies to the extent feasible. Specifically, DWR will use the existing resource database and GIS mapping to help avoid historic properties during fire suppression or other emergency actions. DWR will consult with DPR, BLM, USFS, and local Maidu tribes, as appropriate, about historic preservation issues at the earliest possible opportunity.

In the case of wildfires, there may be an opportunity to conduct a post-fire archaeological inventory. As noted in the archaeological and historical resources inventory (DWR 2004a), some upland areas of the APE contain thick vegetation and/or forest duff that obscures the ground surface. Wildland fires may burn off this vegetative

cover, allowing for a more complete and thorough archaeological inventory of the burned area. The decision to conduct such opportunistic inventories will be made by DWR on a case-by-case basis.

If resources are damaged during emergency situations, DWR will conduct an assessment of the damage and develop site-specific treatment plans, as appropriate, to address these resources in consultation with the interested parties. Post-emergency meetings may be held to discuss the response, lessons learned, and ideas for improved procedures for future emergencies.

5.0 ROLES, RESPONSIBILITIES, AND REPORTING REQUIREMENTS

This chapter describes the roles and responsibilities of DWR, other State and federal agencies, and other parties involved in the development, implementation, and oversight of the HPMP. The Cultural Resources Consultation Group (CRCG) is established to hold annual meetings and to facilitate regular communication and interaction among these parties. Standard reporting requirements are addressed in this chapter, as are issues of confidentiality. Finally, a process for dispute resolution is provided.

5.1 AGENCY ROLES AND RESPONSIBILITIES

As the holder of the FERC hydropower license and owner and operator of the Oroville Facilities, DWR is responsible for implementation of the final HPMP. However, FERC, DPR, DFG, BLM, and USFS each have responsibilities for the management of cultural resources in the project area, as noted below. Other consulting parties, particularly the SHPO and the local Maidu tribes, have an important role in the Section 106 process and this HPMP. The following summarizes the key roles and responsibilities of these parties relative to the HPMP.

5.1.1 Federal Energy Regulatory Commission

As the lead federal agency for the issuance of the hydropower license, FERC has the responsibility for compliance with Section 106 of the NHPA and will sign the Programmatic Agreement (PA) for the Oroville Facilities. In conjunction with the relicensing process, FERC authorized DWR to initiate consultation under Section 106 on its behalf, and participated in the collaborative process with DWR and the other stakeholders leading up to DWR's submittal of the license application and this draft HPMP. FERC is legally responsible for compliance with Section 106, and has the responsibility for ensuring that the final HPMP is implemented by DWR. FERC will be an invited participant in the CRCG.

5.1.2 California Department of Water Resources

DWR holds the FERC license for the Oroville Facilities, and is responsible for meeting the requirements of the final HPMP and all other conditions of the hydropower license. As a State agency, DWR also has obligations under California law. DWR has the lead responsibility for implementation of the final HPMP. The management structure to be established by DWR to ensure that these responsibilities are met is described in Section 6.1.

5.1.3 California Department of Parks and Recreation

Management of LOSRA, which encompasses much of the land within the APE for the Oroville Facilities, is the responsibility of DPR. As a State agency, DPR must comply with applicable State laws, regulations, and policies. DPR also manages the SSP, and provides law enforcement actions within LOSRA. DPR is expected to participate in the CRCG.

5.1.4 California Department of Fish and Game

DFG is responsible for management of approximately 11,000 acres of State lands within the OWA. The OWA is managed for wildlife habitat, recreational activities, and gravel mining. DFG must comply with applicable State laws, regulations, and policies, including those relevant to cultural resources.

5.1.5 Federal Land Management Agencies (U.S. Bureau of Land Management and U.S. Forest Service)

As federal land management agencies with lands within the APE for the Oroville Facilities, BLM and USFS are responsible for complying with laws, regulations, and policies related to these lands. Among the requirements related to cultural resources are ARPA, AIRFA, NAGPRA, and Sections 106 and 110 of the NHPA. Actions proposed by DWR in association with the Oroville Facilities on federal lands will be coordinated with these agencies. Compliance with Section 106 by these agencies would be required for actions undertaken by these agencies unrelated to the FERC license for the Oroville Facilities—FERC is responsible for compliance with Section 106 on undertakings related to the hydropower license. BLM and USFS are signatory parties to the PA, and will be invited participants in the CRCG.

5.1.6 State Historic Preservation Officer

The SHPO was established under the NHPA, and serves as a consulting party for the review of NRHP eligibility determinations and the effects of federal undertakings on historic properties. The SHPO is a signatory party to the PA.

5.1.7 Advisory Council on Historic Preservation

Also established with enactment of the NHPA, the ACHP serves as a review body when parties involved in Section 106 consultation are not able to reach agreement, or at the request of an interested party. ACHP is a signatory party to the PA.

5.1.8 Federally Recognized Indian Tribes (Mooretown, Enterprise, and Berry Creek Rancherias, and Mechoopda Indian Tribe of Chico Rancheria)

These federally recognized tribes have been involved in the collaborative relicensing process established for the Oroville Facilities since its inception, participating in both CRWG and MAC meetings with DWR and other stakeholders. With traditional ties to the cultural resources in the project area, these tribes have expressed interest in the protection, preservation, and management of these resources. The tribes will be invited participants in the CRCG, and will have the opportunity to concur with the PA.

5.1.9 Non-Federally Recognized Indian Tribes

The Konkow Valley Band of Maidu is not a federally recognized tribe, but has traditional ties to and interests in the cultural resources of the Oroville Facilities. This group has been involved during the collaborative relicensing process by actively participating in the

CRWG and the MAC. The Konkow Valley Band will be an invited participant in the CRCG and will be asked to concur with the PA.

5.2 CULTURAL RESOURCES CONSULTATION GROUP

The CRCG is established by this HPMP to meet DWR's goals for continued coordination with parties responsible in cultural resources management. It will provide enhanced opportunities for participation in resource stewardship. In addition, the CRCG will provide a mechanism for conducting an annual review of proposed future actions, as described in Section 4.2, and of other HPMP activities (e.g., archaeological inventory and evaluation efforts).

The CRCG will be chaired by DWR, with invited participants to include FERC, BLM, USFS, DPR, SHPO, members of the local Maidu community, and other interested parties that may be identified. The CRCG is expected to meet on an annual basis the first five years after acceptance of the new FERC license by DWR and on as-needed basis thereafter.

5.3 REPORTING REQUIREMENTS

DWR will ensure that the following reports related to the HPMP are prepared and distributed.

5.3.1 Consultation Documents

DWR will continue to consult with appropriate agencies and the local Maidu tribes on historic property management issues. For example, to complete any needed data recovery, DWR would have to prepare a treatment plan and submit it to the consulting parties for review and comment. Proposals for future actions that could affect historic properties would also require project-specific consultation with interested parties (see Section 4.2). DWR will be responsible for preparing and distributing these documents to the signatory and concurring parties to the PA.

5.3.2 Technical Reports

Cultural resources investigations conducted by DWR in compliance with the HPMP will involve the preparation of technical documents such as archaeological inventory reports and resource evaluation reports. DWR will prepare and distribute these documents to the signatory and concurring parties to the PA, in recognition of the confidentiality concerns noted in Section 5.4.

5.3.3 Annual Project Review List

As described in Section 4.2, DWR will prepare an annual report of proposed future nonexempt actions. This list will be distributed to the consulting parties for review and comment, and will be reviewed at the annual meeting of the CRCG.

5.3.4 Annual Report

For the first 10 years of the accepted new FERC license, DWR will prepare an annual report summarizing actions taken in the preceding year under the final HPMP. These actions may include technical studies, management measures related to the protection of historic properties, monitoring activities, and actions conducted under the Public Interpretation Program (see Section 4.5). This informational report will be distributed to the consulting parties. From year 11 through the end of the term of the license, DWR will prepare a report every three years summarizing actions taken. The tri-ennial reports will be distributed to consulting parties.

5.3.5 Summaries of Meetings

DWR will prepare and distribute summaries of meetings held regarding topics discussed in the HPMP (e.g., CRCG, formal HPMP review meetings). These summaries will be distributed to the consulting parties and all attendees at these meetings.

5.4 CONFIDENTIALITY

DWR recognizes the sensitive nature of certain cultural resources information such as archaeological site locations. These data will not be distributed to the general public. Technical reports and other documents containing such data are exempt from public record requests (e.g., the Freedom of Information Act), and will be withheld from any party that does not have a professional, management, or legal reason for needing these data. DWR will adhere to the requirements of State agencies for maintaining and distributing public information.

5.5 DISPUTE RESOLUTION

It is the goal of DWR to work in a collaborative manner with the parties interested in the management of cultural resources associated with the Oroville Facilities. However, implementation of the final HPMP could result in an unresolved dispute between DWR and one of the other consulting parties. In the event of such a dispute, DWR will seek comment from FERC and take into account FERC's comments on the disputed issue. Under the procedures for Section 106, the consulting parties may also request the opinion of the ACHP on matters of dispute.

6.0 HISTORIC PROPERTIES MANAGEMENT PLAN IMPLEMENTATION

This chapter describes the structural organization and staff roles to be instituted by DWR for the implementation and management of the HPMP.

6.1 DWR MANAGEMENT STRUCTURE

To track compliance with FERC license conditions, DWR will establish a License Coordination Unit (LCU) at the Field Division Headquarters in Oroville. The LCU will include a Cultural Resources Administrator (CRA) position. The CRA will be supervised by and report to the Chief of the LCU. DWR will also staff a Cultural Resources Coordinator (CRC) position to assist in the implementation of the HPMP. The CRC will be assigned to the Division of Environmental Services (DES) in DWR's Sacramento offices, and will serve as critical support staff to the CRA and LCU on technical issues. The CRC will report to the Chief of the Environmental Review and Compliance Branch of DES.

The specific roles of the CRA and CRC relative to the management measures described in Chapter 4.0 are listed in Table 6.1-1 and further defined below.

Table 6.1-1. Roles of the Cultural Resources Administrator and Cultural Resources Coordinator.

Management Measure	CRA Responsibilities	CRC Responsibilities
Resource Monitoring	Coordinate with DPR on the SSP	Direct site-specific efforts as necessary
Impact Avoidance	Coordinate with the LCU on avoidance actions	Provide input to and support the CRA
Protection/Stabilization	Coordinate with the CRC and assist in implementation	Direct site-specific efforts
Data Recovery	Support the CRC	Direct site-specific efforts
Proposed Future Actions	Assess exempt/nonexempt status, prepare and distribute annual review list, attend annual review meeting	Support the CRA by assessing the need for further studies and chair CRCG review meetings
Future Archaeological Inventory	Support the CRC	Direct inventory efforts
Future Resource Evaluations	Support the CRC	Direct evaluation efforts
Public Interpretation Program	Direct and coordinate with the LCU, DPR, and the CRC	Provide input to and support the CRA
Inadvertent Discoveries	Notify the CRC and other agencies; enforce stop-work orders	Direct resource assessment and reporting requirements
Emergency Situations	Coordinate with the LCU, DPR and other agencies, and the CRC; implement avoidance measures	Support the CRA and direct technical efforts

Notes: CRA = Cultural Resources Administrator; CRC = Cultural Resources Coordinator.

6.1.1 Cultural Resources Administrator

The CRA is not a technical position, and as such will not necessarily be a cultural resources specialist. The CRA will have the primary responsibility at the LCU for ensuring that the final HPMP is properly implemented and that other cultural resources aspects of the FERC license conditions are met. The CRA will serve as a liaison with the Chief and other members of the LCU, and will coordinate with the CRC on assessing the need for and conducting technical management measures described in Chapter 4.0. The CRA will have the following primary responsibilities for implementation of the HPMP:

- Coordinate with DPR and the CRC on implementation of the SSP for the monitoring of cultural resources, and assist DPR in enforcement actions;
- Coordinate with the LCU and CRC on identifying the need for and implementing management decisions related to the avoidance of project-related impacts to historic properties;
- Coordinate with the CRC and assist in the implementation and monitoring of site-specific protection/stabilization efforts;
- Support the CRC in the performance of technical investigations (e.g., archaeological inventory, resource evaluations, data recovery efforts);
- Coordinate with the LCU and DPR on proposed future actions, assess exempt/nonexempt status of those actions, and coordinate with the CRC on potential need for additional cultural resources investigations associated with nonexempt actions;
- Prepare and distribute the annual project review list, and attend the annual review meeting;
- Develop and direct the implementation of the Public Interpretation Program in coordination with the LCU, DPR, and the CRC;
- Notify the CRC and appropriate agencies in the event of inadvertent cultural resources discoveries, ensure stoppage of potentially destructive construction activities, and issue orders to resume work in coordination with the CRC; and
- Coordinate with the LCU, DPR and other agencies, and the CRC during emergency situations to implement appropriate avoidance measures and to conduct necessary technical studies.

In addition to these specific actions, the CRA will have the lead responsibility for maintaining correspondence and communication with the consulting parties in the performance of the HPMP.

6.1.2 Cultural Resources Coordinator

The CRC will be a qualified professional archaeologist who meets the qualifications standards established by the Department of the Interior (48 Federal Register 22716, Sept. 1983). The CRC will coordinate with the CRA as described above, and will have the following responsibilities:

- Direct and report on site-specific monitoring activities as necessary;
- Coordinate with the CRA on the need for and methods to accomplish the avoidance of project-related impacts to historic properties;
- Identify the need for and direct site-specific measures for site protection, site stabilization, future archaeological inventory, and resource evaluations, in coordination with the CRA;
- Prepare and distribute technical cultural resources reports;
- Maintain hard-copy and electronic libraries of cultural resources information, including a GIS database;
- Coordinate with the CRA on development of the annual project review list, and assess existing cultural resources information and the need for potential additional studies;
- Schedule and hold annual review meeting, and prepare and distribute meeting notes;
- Coordinate with the CRA on the Public Interpretation Program, and review and contribute to informational materials;
- Direct professional assessment of inadvertent discoveries, assist the CRA in notification and work stoppage requirements, and prepare a report documenting the assessment;
- Support the CRA in response to emergency situations, and direct technical efforts associated with these events;
- Prepare and distribute an annual report on HPMP actions;
- Schedule and hold 5-year formal HPMP review meetings;
- Lead efforts related to formal amendment of the HPMP;
- Maintain correspondence and communicate with the consulting parties in the performance of the HPMP, including serving as the liaison with local Maidu.

- Attend RAC, EAC, and LCU Workshop meetings and make presentations/updates on Cultural Resources issues

6.2 IMPLEMENTATION SCHEDULE

The HPMP involves the following scheduled items:

- Distribution of an annual project review list;
- An annual project review meeting;
- Distribution of an annual report on HPMP activities; and
- A formal HPMP review meeting at 5-year intervals for the first 10 years, and at 10-year intervals thereafter for the duration of the license.

6.2.1 High-Priority Actions

Measures intended to address ongoing project-related effects described in Section 4.1 will be addressed on a priority basis. Based on the results of the inventory efforts and discussions with interested parties during the collaborative process, the following four areas are considered of the highest priority:

- McCabe Creek (woody debris collection and removal activities);
- Foreman Creek (recreation impacts);
- Enterprise (recreation impacts); and
- Boat-in Campgrounds (recreation impacts).

DWR will conduct resource evaluations to assess NRHP eligibility of involved resources, institute available management measures at these locations to avoid or reduce ongoing impacts, and coordinate with the consulting parties on the development of site-specific treatment plans to address unavoidable adverse effects on historic properties at these locations. Treatment plans for historic properties in these locations will be developed within 3 years following the evaluation of these resources.

6.2.2 Program Implementation

DWR intends to implement the following three HPMP programs shortly after issuance of the FERC license and approval of the HPMP.

6.2.2.1 Program for Future Archaeological Inventory

DWR is committed to completing the inventory of non-inundated lands within the APE for the Oroville Facilities within 5 years from DWR acceptance of the new FERC license.

This will require the planning and implementation of archaeological surveys on approximately 3,000 acres during each of those 5 years. Inventory of the inundated lands will occur as the opportunity arises.

6.2.2.2 Program for Future Resource Evaluations

DWR will complete formal NRHP evaluations for approximately 10 percent of the prehistoric archaeological sites within the APE within 3 years of approval and acceptance by DWR of the new FERC license. These evaluations will be used to better assess the nature of the prehistoric resources, and facilitate the prioritization of site avoidance, protection, stabilization, and data recovery efforts.

6.2.2.3 Public Interpretation Program

Within 1 year of issuance of the FERC license, DWR will work with interested parties and DPR to develop a Public Interpretation Plan. This plan will specify the components of the Public Interpretation Program. The plan will specify elements of the program to be implemented within 2 and 5 years of new FERC license issuance and acceptance by DWR, as well as components of the long-term Public Interpretation Program.

6.2.3 Other HPMP Elements

Many other management measures cannot be scheduled. For example, response to emergency actions and inadvertent discoveries are dictated by unpredictable events. Site-specific actions at other locations within the APE will be developed based on the results of resource evaluations, monitoring efforts, and management decisions.

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7.0 PROCEDURES FOR REVIEW AND UPDATE

The management of historic properties associated with the Oroville Facilities over the term of the new hydropower license requires flexibility and adaptation. This HPMP must be reviewed and modified to ensure that the plan adequately addresses:

- New cultural resources and resource values;
- Updated project management issues;
- Substantive changes to the use of the project area; and
- New laws, regulations, and policies that may be enacted/adopted.

This chapter describes the process and timing of periodic reviews and updates needed to keep the HPMP current and effective.

7.1 ADOPTION OF THE HISTORIC PROPERTIES MANAGEMENT PLAN

Under the Section 106 process, development of the HPMP and signing of the PA requires consultation with SHPO, federal land management agencies, Indian tribes, and other interested parties (e.g., DPR). This draft HPMP was developed in consideration of the cultural resources goals, objectives, and issues raised by these parties and others during the collaborative process implemented for the Oroville Facilities. The preliminary draft HPMP was provided to BLM, USFS, the SHPO, DPR, and local Maidu tribes for review and comment before submittal to FERC. The final HPMP will be adopted with the PA to be developed by FERC in compliance with Section 106 of the NHPA.

7.2 PROCESS FOR REVIEW OF THE HPMP

DWR will conduct formal reviews of the HPMP in consultation with FERC, USFS, BLM, the SHPO, DPR, local Maidu tribes, and other interested stakeholders. These formal reviews will be conducted every 5 years for the first 10 years following adoption of the final HPMP, and every 10 years thereafter. These reviews will be held to:

- Assess the effectiveness of the HPMP in meeting the stated goals and objectives of the plan;
- Ensure that the plan adequately addresses current laws, regulations, and agency policies;
- Discuss topics of interest or concern among the stakeholders; and
- Consider amendments to the HPMP.

DWR will prepare a summary report documenting the results of the formal reviews and distribute this report to the participants.

7.3 PROCEDURES FOR AMENDMENTS TO THE HISTORIC PROPERTIES MANAGEMENT PLAN

Proposed revisions to the HPMP may arise from the formal review meetings described above, or may be identified by DWR for unanticipated management reasons. Any of the consulting parties may request revision of the HPMP by submitting written comments and proposed modifications to DWR and the consulting parties. Revisions to the HPMP will require the formal adoption of amendments by the signatory parties to the PA. Amendments to the HPMP will be adopted upon written consent of all signatory parties.

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APPENDIX A. LIST OF ARCHAEOLOGICAL AND HISTORICAL RESOURCES

In Preparation

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APPENDIX B. MAPS OF ETHNOGRAPHIC AND ETHNOHISTORIC LOCATIONS

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APPENDIX C. MAPS OF HISTORICAL BUILDINGS AND STRUCTURES

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APPENDIX D. LIST OF EXEMPT ACTIONS

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